

FORMATION

Alluvium

Slump and landslide deposits

Colluvium and talus

Terrace deposits

Salt Lake Group

Wasatch Formation

Wells Formation

Monroe Canyon Limestone

Little Flat Formation

Lodgepole Limestone

Leatham Formation

Beirdneau Sandstone

Hyrum Dolomite

Water Canyon Formation

Laketown Dolomite

Fish Haven Dolomite

Swan Peak Formation

Garden City Limestone

St. Charles Formation

Nounan Dolomite

Bloomington Formation

Blacksmith Dolomite

Ute Limestone

Langston Formation

Geertsen Canyon

Quartzite

Browns Hole Formation

QUAT

PENN.

UPPER

E

SILURIAN

VICIAN

ORDO

DEVONIAN

brown weathering; thin-bedded silty limestone at base.

some pebble conglomerate.

p€bh

Langston Formation. Upper member—Light to dark blue-gray dolomite and dark gray

limestone; reddish brown weathering. Spence Shale Member - Light olive-brown

to dusky yellow shale. Naomi Peak Limestone Member - Thin-bedded, blue-gray

limestone. Lower member-Interbedded dolomite and limestone as found in

Geertsen Canyon Quartzite—Thick-bedded to massive light gray to brown quartzite;

Browns Hole Formation—Quartzite, volcanic rocks, and shale; on cross section only.

STRATIGRAPHIC COLUMN

SYMBOL

Qal

Qms

Qc

Qat

Ts

Tw

Pw

Mmlu

Mmll

THICKNESS Feet (Meters)

0-40 (0-12)

20-50 (6-15)

20+ (6+)

200±(60±)

600-900

(180-270)

250-500 (75-150)

500-600

(150 - 180)

1210 (363)

660-690

(198-207)

710-940

(213-282)

930 (279)

210 (63)

1240-1610

(372 - 483)

125-140 (38-42)

30-110 (9-33)

1160-1500

(348-450)

970 (291)

1070-1125

(321 - 338)

(57-120)

900-1100

(270 - 330)

320-480

(96-144)

665-840

(200-252)

380-410

(114-123)

4200

(1260)

Subsurface

Dle 16-100 (5-30)

Mlo

MDII

Db

Dwc

SI

Oac

O€sc

€boc

€boh

€b

€u

€la

pCbh

€bo

LITHOLOGY

Unconformity

Unconformity

Unconformity

Large solitary corals

Delle Phosphatic Member

Cottonwood Canyon Member

Upper carbonate member

Middle sandstone member

Lower carbonate member

Samaria Limestone Member

Unconformity

Chert

☐ Chert

Unconformity

Unconformity

Unconformity

Intraformational conglomerate

Worm Creek Quartzite

Upper limestone member

Lower limestone member

Hodges Shale Member

Upper member

Spence Shale

Lower member

Naomi Peak Limestone Member

Calls Fort Shale

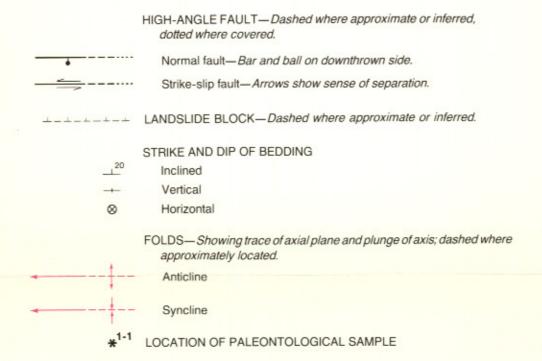
-Unconformity

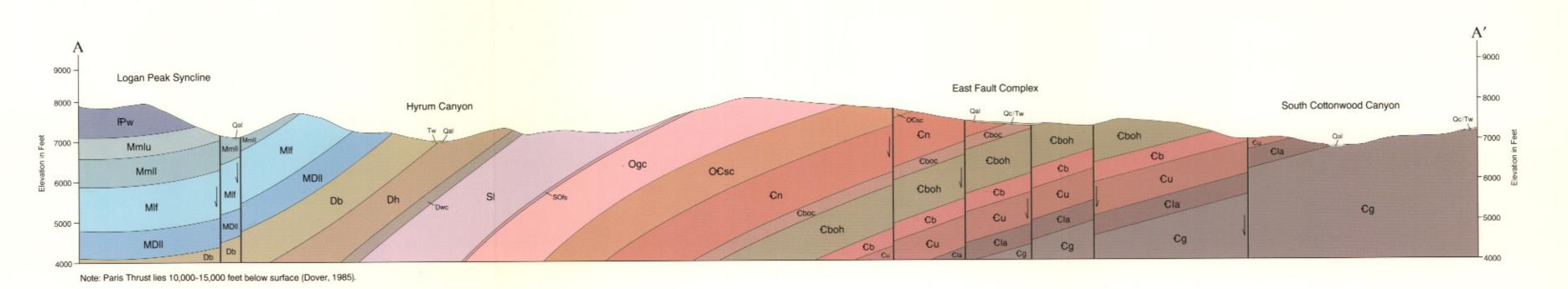
Woodhurst Member

Paine Member

-Unconformity

Geologic Map of the Porcupine Reservoir Quadrangle CORRELATION OF MAP UNITS **DESCRIPTION OF MAP UNITS** Alluvium—Sand, silt, clay, and some gravel in active streams. Qal HOLOCENE Qms QUATERNARY Qc Qat PLEISTOCENE Mass movement slump and landslide deposits—Disaggregated rock and surficial Qms deposits displaced downslope by gravity. Unconformity Colluvium and talus-Sand, silt, and fragments to blocks of rock at the base of a cliff Ts MIOCENE TO PLIOCENE Qc or steep rocky slope. Unconformity TERTIARY Gravel terrace deposits-Conglomerate deposited at mouths of south-trending Qat canyons along Blacksmith Fork and East Canyon probably during Lake Tw Bonneville time. EOCENE Salt Lake Group-Tuffaceous sandstone and fresh-water limestone con-Unconformity Ts glomerate with quartzite clasts. ₽w PENNSYLVANIAN Wasatch Formation-Basal conglomerate with limestone matrix overlain by reddish brown weathering conglomerate with quartzite clasts. Unconformity Wells Formation-Poorly exposed sandstone with few limestone interbeds. Mmlu Mmll Upper unit of Monroe Canyon Limestone-Medium to dark gray limestone, with very MISSISSIPPIAN Mmlu thin basal yellowish brown siltstone; forms ledgy slopes. MIf Lower unit of Monroe Canyon Limestone-Massive cliff-forming limestone and MI Mmll cherty limestone with large solitary corals. MDII Unconformity Dle Little Flat Formation. Upper unit—Quartz sandstone or siltstone with occasional beds of limestone; forms ledgy slopes. Delle Phosphatic Member-Basal thin-bedded Unconformity shale, black chert with phosphate pellets, siltstone, and limestone. Lodgepole Limestone and Leatham Formation, undifferentiated. Db MDII Dh DEVONIAN Lodgepole Limestone. Woodhurst Member-Medium to dark gray limestone cyclically interbedded with calcisiltite or calcareous mudstone; abundant Unconformity megascopic fossils. Paine Member-Medium to dark gray limestone, thinbedded; contains black chert nodules, lenses and beds. Cottonwood Canyon Dwc Member—Fine-grained sandstone. Leatham Formation—Light gray to yellowish brown thin-bedded siltstone and gray Unconformity limestone; abundant pellets of limonite near base; forms slopes. SI Beirdneau Sandstone. Upper carbonate member-Interbedded dolomite and limestone capped by resistant blocky bed of limestone known as the "contact Unconformity SILURIAN ledge". Middle sandstone member-Dolomitic and calcitic siltstone, sandstone, and quartzite, with minor white chert; thin-to medium-bedded. Lower carbonate member-Light to medium gray yellowish orange and brown limestone and dolomite; varying amounts of quartz sand and silt; thin-to thick-bedded. SOfs Unconformity Hyrum Dolomite. Upper unit-Light to dark gray dolomite, dolomitic limestone and limestone; brecciation and deformation of beds common; fetid; few quartzite beds. Ogc Samaria Limestone Member-Basal thin-to medium-bedded dolomite, silty dolomite, and limestone, multicolored; ledge-forming. **ORDOVICIAN** Unconformity Water Canyon Formation. Grassy Flat Member-Multicolored dolomitic siltstone Dwc interbedded with dolomite; grades up into dark gary limestone. Card Member-**O€sc** Light brownish gray boundstone, weathers very light gray; thin-bedded. Laketown Dolomite—Light to medium gray dolomite, white to medium gray chert near Unconformity base and top; forms massive vertical cliffs; thin-to-thick-bedded. €n Fish Haven Dolomite and Swan Peak Formation, undifferentiated. Fish Haven Dolomite—Dark gray dolomite, thick-to very thick-bedded; scattered chert € boc nodules and lenses; forms cliffs. Swan Peak Formation-Gray shale interbedded €bo with multicolored quartzite and sandstone, laminated to thin-bedded; limey **€boh** dolomite common at base; poorly exposed. CAMBRIAN Garden City Limestone-Thin-to medium-bedded blue-gray crystalline and €b fossiliferous limestone, intraformational conglomerate and limey mudstone, with silty interbeds and lenses, dolomite and black chert near top. €u St. Charles Formation. Upper dolomite and limestone unit-Cliff-forming, banded light and dark gray dolomite with thin sections of thin-bedded limestone and €la calcisiltite. Worm Creek Quartzite - Thin bed of fine-grained quartzite overlain by LATE pC TO CAMBRIAN €g Nounan Dolomite—Light to dark gray dolomite, fine to coarsely crystalline; sections PRECAMBRIAN p€bh of dark gray limestone and dolomitic sandstone near top. Bloomington Formation, undifferentiated. €bo Upper limestone and Calls Fort Shale Members of Bloomington Formation—Olive-SYMBOLS brown shale overlain by blue-gray limestone. CONTACT-Dashed where approximate or inferred. Lower limestone and Hodges Shale Members of Bloomington Formation-Interbedded limestone and shale overlain by blue-gray limestone; forms ledgy HIGH-ANGLE FAULT-Dashed where approximate or inferred, dotted where covered. Blacksmith Dolomite-Cliff-forming, medium-bedded to massive dolomite, light to €b Normal fault-Bar and ball on downthrown side. Strike-slip fault—Arrows show sense of separation. Ute Limestone—Thin-bedded blue-gray limestone and olive-brown shale; reddish





Qc/Tw SURFICIAL UNIT OVERLYING A BEDROCK UNIT

